

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

ASHTON et al.

Atty. Ref.: 620-401; Confirmation No. 1869

Appl. No. 10/556,901

TC/A.U. 1625

Filed: November 15, 2005

Examiner: Chandrakumar

For: GLYOXALASE INHIBITORS

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Monday, February 23, 2009

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE**

Responsive to the Official Action dated January 22, 2009, the applicants elect, with traverse, the subject matter of the Examiner's Group 1 for further examination.

The Examiner is requested to appreciate that claim 49 was canceled, without prejudice, in the Amendment filed October 1, 2008.

All of the claims indicated by the Examiner to read on the subject matter of the Examiner's Group I read on the elected subject matter.

Rejoinder and allowance of any claim defining a method of making and/or using a product defined by an allowable claim, at an appropriate time, are requested.

The Examiner has cited "(CAS Number 108-98-5)"<sup>1</sup> in support of the restriction requirement without providing a copy of the document or listing the document on a PTO

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<sup>1</sup> See page 4 of the Office Action dated January 22, 2009.

892 Form. The Examiner is requested to supply the document and list the same on a PTO 892 Form.

The applicants elect the subject matter of the Examiner's Group 1, with traversed. Reconsideration and withdrawal of the restriction requirement and continued examination of all the claimed subject matter are requested for at least the following reasons.

The Examiner has mailed two (2) previous restriction requirements prior to the restriction requirements of November 19, 2008 and January 22, 2009. A first restriction requirement was mailed February 26, 2007 which failed to consider the pending claims, as noted in the applicants response of March 1, 2007. A second restriction requirement was mailed March 26, 2007, to which the applicants responded June 26, 2007. The June 26, 2007 Response did not include claim amendments. The applicants elected, with traverse, the subject matter of the Examiner's Group I for further prosecution in the Response of June 26, 2007. The basis of the restriction requirement of March 26, 2007 was an alleged separate patentability of compounds of the claims based on definitions of X and L<sup>2</sup>. The Examiner asserted in the Office Action of March 26, 2007 that the claims allegedly lacked unity of invention because components of the claimed compounds, and not the claimed compounds themselves, were allegedly known in the art, as evidenced by Lohse (Journal of Agricultural and Food Chemistry, 2000, 5913-5923).

The first Action on the merits (i.e., an Office Action mailed August 23, 2008) found the claims to be patentable over Lohse as well as the other art of record and contained only an alleged indefinite rejection and enablement rejection. The applicants

responded to the Office Action of August 23, 2008 with an Amendment filed November 21, 2008.

A second Office Action on the merits was mailed December 27, 2007, which was a final rejection of the claims again for allegedly not being definite or supported by an enabling disclosure. The applicants responded to the final rejection with an Amendment filed March 20, 2008.

The Examiner refused entry of the Amendment because the Examiner believed the amendments and remarks did not place the application in condition for allowance. See third substantive consideration of the application in the Advisory Action mailed April 7, 2008.

The applicants filed a RCE April 21, 2008 to force entry of the Amendment filed March 20, 2008.

A further Action on the merits (now the fourth consideration of the claims on the merits) was mailed May 1, 2008, wherein the Examiner again found the claims patentable over the art of record but rejected the claims as allegedly being indefinite and for allegedly not being supported by an enabling disclosure. The applicants responded to the Office Action of May 1, 2008 with an Amendment filed October 1, 2008.

The claims have received four substantive reviews by the Examiner. The Examiner now asserts in the Office Actions mailed November 19, 2008 and January 22, 2009 (i.e., over 22 months after the mailing of the original restriction requirement of February 26, 2007) that a further restriction is required based on a recitation of

thiophenol<sup>2</sup> being known in the art. Based on the known structure of thiophenol, the Examiner asserts that the claims allegedly lack a corresponding special technical feature and that the applicants must apparently elect between compounds of the claims containing heterocyclic moieties and compounds of the claims which do not contain heterocyclic compounds.

No basis is provided for alleging separate patentability of the subject matter of the Examiner's Groups 3 and 4.

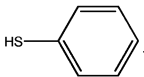
With due respect to the Examiner, further examination of the pending claims, without further restriction will provide no more of a burden going forward as the Examiner has already examined the claims on the merits in the multiple Office Actions noted above. A further restriction requirement is believed to be inappropriate and unjust at the present time.

The existence of a compound which represents a core of the presently claimed compounds does not establish that the claimed compounds containing a heterocyclic moiety fails to share a corresponding special technical feature with the claimed compounds which do not contain a heterocyclic moiety.

Thiophenol of the cited art is not a heterocyclic compound. Moreover, thiophenol of the cited art does not contain a heterocyclic moiety. The Examiner has failed to indicate how the cited art establishes that the claimed invention lack the same or corresponding special technical features.

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<sup>2</sup> Thiophenol has the following structure:



The Examiner is urged to appreciate that the pending claims encompass compounds that do not have a heterocycle present in the molecule. The group "C<sub>5-7</sub> heterocyclyl" is present only as a substituent in the definition of R<sup>3</sup>. All the claims read on to compounds where R<sup>3</sup> covers groups that are not C<sub>5-7</sub> heterocyclyl. In the embodiments of the invention and the examples, R<sup>3</sup> is an aryl group (i.e., not a heterocyclic group). See claims 44 and 45, for example.

The Examiner appears to have focused on the central core of the claimed compounds, and has not given due consideration to the other groups present as substituents to this core. For the purposes of unity, all the features of the claims must be considered in their combination.

For example, the claims state that each compound must have a group N(OH)C(=O) present within L<sup>4</sup>. This "special technical feature" is a contribution over the art, and it is certainly not present in thiophenol.<sup>3</sup> This feature is especially important, as the inventors have identified that compounds having this moiety at this location have glyoxalase I inhibitory activity (see examples 5 and 6).

The compounds of the invention share other characteristics. Each of the compounds contains a substituted thiol group. That substituent must contain a C(=O)O functionality. This "special technical feature" is a contribution over the thiophenol identified by the Examiner.

Furthermore, and more generally, the invention provides substituted thiophenol compounds. Thus, each of the compounds of the invention has a substituted thiol

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<sup>3</sup> As noted above, the Examiner has found the claims patentable over the art of record throughout prosecution.

group at the 1-position of the core, and each compound is also substituted at the 4-position of the core with a group  $L^4-R^3$ . Thus, the 1,4-disubstituted pattern is another common feature that is a technical contribution over the thiophenol compound identified by the Examiner.

For at least the reasons provided herein, the compounds claimed are so linked as to form a single general inventive concept under PCT Rule 13.1. Each of the compounds has a common structure present - that is, a significant structural element is shared by all of the alternatives (see, for example, the PCT Applicant's Guide, paragraph 134). The Examiner's objections are incorrectly founded, and restriction of the present application is not proper.

Withdrawal of the restriction requirement and further action on the merits of the claimed invention are requested.

The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14 1140.

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Response  
February 23, 2009

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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